

## Eleventh Meeting of the Conference of the Parties

### Interpretation and Implementation of the Convention

#### TRADE IN FRESHWATER TURTLES AND TORTOISES TO AND IN SOUTHEAST ASIA

This document has been prepared and submitted by Germany and the United States of America.

#### Introduction

Southeast Asia holds the richest diversity of terrestrial turtles in the world, encompassing over 25 percent of the world's 263 species (Collins 1998). Most, including the region's tortoises, are traded internationally for the Asian food and Traditional Chinese Medicine (TCM) markets (McCord 1998).

While turtles have been utilised by humans for centuries (Zhao 1995), recent changes in Asian economics have facilitated international trade (Behler 1997) including trade in wildlife. Presently, millions of freshwater turtles and tortoises are consumed as food and medicine in South and East Asia annually (McCord 1998; Salzberg 1998). As a consequence of this huge and apparently unsustainable trade the populations of many affected species have been dramatically reduced in the wild and need conservation measures (Collins 1998; Lehr 1997). According to Behler, the head of the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group, Southeast Asia "is being vacuumed of its turtles" (Behler, cited in Kaesuk Yoon 1999).

While most of the affected species are not covered by international protection several species listed on the Appendix I and II of CITES Appendices are regularly offered for purchase in food markets (e.g. Kuchling 1995; Lau *et al.* 1995; Li & Dianmo 1998; McCord 1998). CITES as the international treaty responsible for regulating international trade in wildlife provides an ideal forum for discussions and measures regarding this trade. This item was discussed for the first time in a CITES forum at the 15<sup>th</sup> Animals Committee Meeting in July 1999 (Madagascar): Several range and consumer states, including China and Indonesia, spoke in favour of further CITES engagement in the conservation of Asian freshwater turtles and tortoises.

The discussion paper is in no way an indictment of traditional human consumption of turtles and tortoises as sources of food or traditional medicine. However, it addresses the conservation impacts of this increasing trade that should be the primary concern of the Parties. The goal of the sponsors of this paper is to work co-operatively to ensure that any species in international trade are utilised in a biologically sustainable manner, based on sound science and effective management and enforcement.

#### International trade perspective

The trade to supply food markets in certain Asian countries has become one of the main threats to the survival of Southeast Asian turtles and tortoises (Behler 1997). This trade involves millions of freshwater turtles and tortoises each year (Salzberg 1998; McCord 1998) and constitutes a large proportion of the transborder wildlife trade between certain Asian countries. For example, 61 percent of the wildlife trade between Vietnam and Southern China (Li & Dianmo 1998) is Chelonians. About 90 percent of the Chelonians in Vietnamese markets are destined for China (Lehr 1997; Klemens 1998). Cambodia exports an estimated 2-4 tons of turtles daily from Phnom Penh to Vietnam (Klemens 1998), although the export of wildlife is prohibited by Cambodian national law (Martin & Phipps 1996). Exports of live animals and shells of several species of freshwater turtles and tortoises from Lao PDR to Thailand are also reported (Salter 1993; Lehr *et al.* 1998).

With growing human populations and affluence in many Asian countries the demand for turtles and tortoises for food and Traditional Chinese Medicine is increasing. For example, the import of Chelonians to Hong Kong for use as food rose from 110 tons in 1991 to 3500 tons in 1996 and even 12,000 tons in 1998- an increase of more than 100fold (Lau *et al.* 1995, Barzyk 1999; Lee 1999), although some trade is in captive bred common species, most is not. It is almost certain that this level of trade is unsustainable. Due to the explosive economic growth and the continuously rising human population in South and East Asian countries (Vorholz 1997) it is very likely that the demand and therefore the trade pressure on all available chelonian species will increase even further.

The increase in the collection of Chelonians in countries that are far from the main markets which is most likely an indication of the depletion of local species. During one survey at food markets in Guangzhou and Sunzhen in China in February 1998 specimens of species native to China represented only two percent of the total number of turtles observed (McCord 1998). The species that were on sale at that market most likely came from Bangladesh, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Pakistan, Papua New Guinea, Thailand, the United States of America, and Vietnam (Artner 1998; McCord 1998). However, most of the trade is not recorded, even in CITES-listed species. In many cases shipments of freshwater turtles and tortoises are declared as seafood (McCord 1998). This fact and the difficulty of identifying the species for sale result in a lack of species-specific monitoring of the trade as well as in serious problems with the enforcement of CITES.

The recent increase in demand of western pet markets for freshwater turtles and tortoises (Pro Wildlife *in prep.*) puts additional pressure on these already declining Chelonian populations. In addition to the increasing demand in Asian and western markets, habitat loss – due to large scale deforestation (e.g. Collins 1990; Gray *et al.* 1994; van Dijk 1997; Studley 1999), fragmentation of rivers by dams (Fu 1997; Moll 1997) and chemical pollution (IUCN/SSC 1991; Sarker & Hossain 1997) - is another important factor that puts additional pressure on populations of many Asian Chelonians.

#### Illegal Trade in CITES Appendix I and II species

Of particular concern is that many species of Chelonians found in the marketplace are listed on CITES Appendix I, *Aspideretes gangeticus*, *Aspideretes hurum*, *Batagur baska*, *Geoclemys hamiltonii*, *Kachuga tecta* and *Morenia ocellata*, and have been found repeatedly at live animal markets in China (Lau *et al.* 1995; McCord, 1998). Many of the Appendix II species seen in these live animal markets are protected from international trade in their countries of origin.

Specimens of *Kachuga tecta* and of *Geoclemys hamiltonii* – both species native to Bangladesh, India, Nepal and Pakistan – were observed at the Xing Ping market in Guangzhou in August 1995 (Artner 1998). During a survey at the Ruli market in Yunnan specimens of *Morelia ocellata* were found for sale (Kuchling 1995). Kuchling also reported large numbers of *Kachuga tecta*, *Aspideretes hurum*, and *Aspideretes gangeticus* at the Chinese markets of Guangzhou and Shenzhen.

Additionally, several CITES Appendix II species are regularly offered in large numbers in Asian countries to which they are not native. There is no evidence these species are being traded in accordance with CITES' requirements. According to Hendrie (1998) *Indotestudo elongata* is perhaps the most common trade species in Vietnam and it appears in most sizeable shipments to China. An abundance of this species at markets in Hong Kong was also described by Lau *et al.* (1995). Wenjun *et al.* (1996) observed *Indotestudo elongata* and *Manouria impressa* "in large quantities" at markets in Guangdong and Guangxi between 1990 and 1994. Kuchling (1995) reported large numbers of several Appendix II species, *Lissemys punctata*, *Indotestudo elongata* and *Manouria impressa* being offered at markets in Guangzhou and Shenzhen. It must be assumed that this trade takes place without CITES permits at various stages of the international trade of the specimens (Li & Dianmo 1998). Furthermore there is concern that the large-scale exports of some Appendix II species are not in accordance with Art. IV of the Convention.

### Biological perspective

Most freshwater turtle and tortoise species are long lived, generally slow-maturing, K-selected species. Some of them, such as *Pyxidea mouhotii*, *Sacalia bealei* and the genus *Cuora* spp., have a very low reproductive rate with low nesting numbers and small clutch sizes, making them very sensitive to over-collection (Das 1997). Collection for food is directed at larger adult specimens, further impacting the populations affected. Information on the status of many populations in the wild is limited. Several species, such as *Mauremys iversoni* (Fritz & Obst 1999) and *Cuora mccordi* (National Environmental Protection Agency of China 1998), are known only from food and pet markets, with nothing known about their natural habitat or population size and trends. Due to this lack of information it is difficult to define quotas based on sustainable off-take for the trade in these species. In 1991 IUCN/SSC urgently recommended detailed population studies of the principal food species to evaluate the potential for a management plan to achieve sustainable-yield harvesting.

### Conservation perspective

The availability of Chelonians in Asian food markets has increased dramatically within little more than a decade. Almost all animals on sale are wild caught (Jenkins 1995; Artner 1998). Although captive breeding of species is being conducted for commercial purposes (*Pelodiscus sinensis*, *Cuora trifasciata*, and *Apalone* spp.) the number of animals produced is far from satisfying the extensive and increasing demand of the food markets (Jenkins 1995; National Environmental Protection Agency of China 1998).

The wild populations of many freshwater turtle and tortoise species found in such markets are declining. The IUCN (1996) classified five species of Asian freshwater turtles and tortoises as critically endangered, seven as endangered, 15 as vulnerable and 12 as near threatened. Directly affected by the demand as food items, almost all species native to China are seriously under pressure. In China's Red Data Book 15 of the 30 native species are classified as "endangered", four species are "critically endangered" and two species probably already extinct (National Environmental Protection Agency of China 1998). Some species, including *Cuora zhoui* and *Cuora pani*, are at least commercially extinct (Behler 1997; Artner 1998). A dramatic decline of Chelonians is also reported for other countries: In India the populations of *Kachuga sylhetensis* have been reduced by 90 percent during the last decade (BCPP 1997). The abundance of other roof turtles in Indian markets is also declining (Choudhury & Bhupathy 1993).

The populations of several Southeast-Asian softshell turtles, which are especially favoured as the most palatable non-marine Chelonians (Salter 1993; Jenkins 1995), are reported to have declined in Bangladesh (Rashid & Swingland 1997), Myanmar (van Dijk 1997), Thailand (Thirakhupt & van Dijk 1997), Nepal (Shrestha 1997), and Malaysia (Jenkins 1995). However, the situation of turtles in Lao PDR and Vietnam is not believed to be any better (Lehr 1997; Kaesuk Yoon 1999).

According to long-term studies by Congdon *et al.* (1993) the removal of even modest numbers of adults and older juvenile turtles has very deleterious effects on their populations, "which cannot easily be offset" (Congdon cited in Behler 1997). The results of these studies strongly suggest that many species of long-lived Chelonians might not tolerate commercial collection (Congdon *et al.* 1993).

### Recommendations

Due to the explosive economic growth and the continuously rising human population in South and East Asian countries it is likely that the demand and trade pressure on Chelonians is bound to increase even further. Only co-operative international efforts can slow the dramatic decline of many Asian freshwater turtles and tortoises.

(Parties) recommend discussion of the following recommendations at the eleventh meeting of the Conference of the Parties:

to Encourage Parties that are range States or importers of the species used as food, medicine and pets

1. to examine the illegal trade in freshwater turtles and tortoises
2. to examine and evaluate their current wildlife trade law enforcement methods and activities and take steps to enhance their implementation
3. to conduct research to determine the species involved and their trade levels and work with universities, industry, and non-governmental organisations to determine what additional species, if any, should be listed on CITES, and determine if any species currently listed in Appendix II meets the requirements for listing on Appendix I
4. to study the impact of trade on wild populations of turtles and tortoises, and conduct more extensive market surveys in consumer countries
5. to promote the sustainability of the trade through co-ordinated biologically-based management programs
6. to co-operatively research and promote the captive farming of appropriate species of turtles and tortoises for export to and use in the consumer countries
7. to explore ways to enhance the participation of exporters, importers and consumers in the conservation and sustainable trade in these species;
8. to review regulations controlling the take, export, and import of these species and amend them if necessary
9. to co-operate in the production of necessary identification guides for both adult and juvenile specimens.

to DIRECT the CITES Secretariat

1. to convene a technical workshop in order to establish conservation priorities and actions for sustainable trade in turtles and tortoises used in the food and Traditional Chinese Medicine markets and to invite the Chairman of the Animals Committee to participate in this workshop to be held within six months. Recommendations elaborated from the "Workshop on Trade in Terrestrial and Freshwater Turtles and Tortoises in Asia" held in Cambodia in December 1999 should be taken into account at this workshop. The findings and recommendations of this workshop should be reported to the Animals Committee by the Secretariat within 90 days of the completion of the workshop.

to DIRECT the Animals Committee:

2. to consider and act upon the findings and recommendations of both the December 1999 Cambodia conference and the Secretariat's technical workshop to further the conservation of turtles and tortoises used in the food and Traditional Chinese Medicine markets
3. to request that the IUCN Freshwater Turtle and Tortoise Specialist Group update their Action Plan.

REQUESTS Germany and the United States to co-ordinate the interested Parties, intergovernmental and non-governmental organisations to provide funding in order to further the recommendation and directives of this discussion paper.

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# Freshwater turtles and tortoises identified at Asian food markets

**Species in bold letters and underlined** = highly abundant on sale; \* = local commercial exploitation in the range states

Scientific name	Countries of Origin	Population Status & Trends	CITE S	National Laws	Reference s
<b>Emydidae</b>					
<b><u>Annamemys annamensis</u></b> Annam leaf turtle	Vietnam	very rarely recorded	-	no data	1) 3) 7) 14) 17)
<b><u>Batagur baska</u>*</b> River terrapin	Bangladesh, India, Indonesia, Malaysia, Myanmar, Thailand, Cambodia? Lao PDR? Singapore?, Vietnam?	IUCN: "endangered" (1996); <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. I		1) 7) 11) 15) 19)
<i>Callagur borneoensis</i> Painted terrapin	Indonesia, Malaysia, Thailand, Brunei? Myanmar?	IUCN: "critically endangered" (1996)	App. II	nationally protected in Thailand	1) 7)
<i>Chelydra serpentina</i> Common snapping turtle	Columbia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, USA	has the largest distribution of any turtle in North America, no data on population size	-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1) 16) 21)
<b><u>Chinemys megalocephala</u></b> Chinese broad-headed pond turtle	China	Red Data Book China (1998): "endangered, rare"	-	capture permit needed	1) 13)
<i>Chinemys nigricans</i> Red-necked pond turtle	China, Vietnam?	IUCN: "data deficient" (1996); Red Data Book China (1998): "endangered, rare"	-	China: catching and killing forbid-den (Red Data Book China 1998)	1)
<b><u>Chinemys reevesi</u></b> Chinese three-keeled pond turtle	China, Japan, North Korea, South Korea	Red Data Book China (1998): "sharply declining numbers"; one of the most abundant species on sale in Hong Kong	-	China: catching and killing forbid-den (Red Data Book China 1998)	1) 13) 16)
<b><u>Cuora amboinensis</u></b> South Asian box turtle	Bangladesh, Cambodia, India, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, China?	IUCN: "near threatened" (1996); one of the most abundant species on sale in Hong Kong, declining populations	-	nationally protected in Lao PDR, Cambodia, Bangladesh, Myanmar, Vietnam and Thailand;	3) 6) 11) 14) 16) 18)
<i>Cuora aurocapitata</i> Golden-headed box turtle	China	IUCN: "data deficient" (1996); Red Data Book China (1998): "critically endangered, rare", one of the most expensive species on sale populations rapidly declining	-	nationally protected throughout range (Anhui Province)	2) 4)
<i>Cuora flavomarginata</i> Chinese box turtle	China, Japan (Ryu Kyu Islands)	IUCN: "vulnerable" (1996); Red Data Book China (1998): "endangered", populations declining ( <i>Cistoclemmys flavomarginata</i> )	-	China: capture permit needed	1) 2)
<b><u>Cuora galbinifrons</u></b> Indochinese box turtle	Cambodia, China, Vietnam, Lao PDR?	IUCN: "near threatened" (1996); Red Data Book China (1998): "endangered", populations declining ( <i>Cistoclemmys galbinifrons</i> )	-	nationally protected in Vietnam and Cambodia, China: capture permit needed	1) 3) 7) 17) 18)
<i>Cuora mccordi</i> McCord's box turtle	China	IUCN: "data deficient" (1996); Red Data Book China (1998): "data deficient", rapidly declining populations	-	capture permit needed	2) 4) 12)
<i>Cuora trifasciata</i> Three-striped box turtle	China, Vietnam, Cambodia? Lao PDR?	IUCN: "endangered" (1996); Red Data Book China (1998): "critically endangered, very rare" Red Data Book Vietnam (1992): "vulnerable", the most expensive turtle species on sale	-	nationally protected in Vietnam, China: protected (grade II), capture permit needed	2) 3) 4) 7) 13)
<i>Cuora zhoui</i> Zhou's box turtle	China	IUCN: "data deficient" (1996); Red Data Book China (1998): "data deficient, sharply declining numbers"	-	capture permit needed	2) 4) 12)
<b><u>Cyclemys dentata</u></b> Asian leaf turtle	Bangladesh, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand,	Red Data Book China (1998): "endangered" rare in Bangladesh	-	nationally protected in Thailand, Bangladesh and Myanmar; China: capture permit needed	1) 7) 11) 13) 14)

	Vietnam, Bhutan?, Cambodia? Lao PDR? Nepal? Singapore?				
<i>Cyclemys tcheponeensis</i> Stripe-necked leaf turtle	Thailand, Vietnam, Cambodia? Lao PDR?	no data	-	nationally protected in Thailand	1) 3) 7) 17)
<i>Geoclemys hamiltoni</i> Spotted pond turtle	Bangladesh, India, Nepal, Pakistan	IUCN: "near threatened" (1996); declining populations in Nepal, fairly common in Bangladesh	App. I		1) 9) 11) 16) 17)
<i>Geoemyda depressa</i> Arakan forest turtle	Myanmar	IUCN: "critically endangered" (1996); extremely rare	-	nationally protected in Myanmar	1) 7) 12)
<b><u>Geoemyda spengleri</u></b> Black-breasted leaf turtle	China, Indonesia, Japan, Malaysia, Vietnam, Lao PDR?	Red Data Book China (1998): "endangered"	-	China: capture permit needed	3) 7) 12) 13)
<i>Geoemyda yuwonoi</i>	Indonesia (Sulawesi)	IUCN: "data deficient" (1996)	-	none	1) 12) 20)
<b><u>Hardella thurjii</u></b> Crowned river turtle	Bangladesh, India, Myanmar, Pakistan	IUCN: "near threatened" (1996); Nepal: "rare", fairly common in Bangladesh	-	nationally protected in Bangladesh and Myanmar	11) 13)
<b><u>Heosemys grandis</u></b> Giant Asian pond turtle	Cambodia, Malaysia, Myanmar, Thailand, Vietnam, Lao PDR?	IUCN: "near threatened" (1996)	-	nationally protected in Thailand, Cambodia and Myanmar	1) 3) 7) 16) 17)
<i>Heosemys spinosa</i> Spiny turtle	Brunei, Indonesia, Malaysia, Singapore, Thailand, Myanmar?	IUCN: "vulnerable" (1996)	-	nationally protected in Thailand	7) 12)
<b><u>Hieremys annandalei</u></b> Yellow-headed temple turtle	Lao PDR; Malaysia, Thailand, Vietnam, Cambodia? Myanmar?	IUCN: "vulnerable" (1996)	-	nationally protected in Thailand and Vietnam	1) 3) 7) 18)
<i>Kachuga dhongoka</i> Three-striped roofed turtle	Bangladesh, India, Nepal	IUCN: "near threatened" (1996); in India: "vulnerable" (1997), rare in Nepal and Bangladesh	-	nationally protected in Bangladesh	1) 8) 9) 11)
<i>Kachuga kachuga</i> Red-crowned roofed turtle	Bangladesh, India, Pakistan	IUCN: "endangered" (1996); India: population decline more than 80 % in 20 years (1997), Nepal: "rare"; <b>one of the ten most threatened freshwater turtles and tortoise species in Asia</b>	-	nationally protected in India and Bangladesh	1) 8) 9) 15)
<i>Kachuga smithii</i> Brown roofed turtle	Bangladesh, India, Pakistan	decreasing populations in Nepal; rare in Bangladesh; "lower risk – least concern" in India (1997)	-	nationally protected in Bangladesh	1) 9) 10) 11)
<b><u>Kachuga tecta</u></b> Indian roofed turtle	Bangladesh, India, Nepal, Pakistan	in India: "lower risk – near threatened" (1997); rare in Nepal, common in Bangladesh	App. I		1) 9) 11) 14) 16)
<i>Kachuga tentoria</i> Indian tent turtle	Bangladesh, India, Nepal	in India: population decline more than 20 % in 10 years (1997), rare in Nepal	-	nationally protected in Bangladesh	1)
<b><u>Malayemys subtrijuga</u></b> Malayan snail-eating turtle	Cambodia, Indonesia, Malaysia, Thailand, Vietnam, Lao PDR?	one of the most abundant species on sale in Hong Kong	-	nationally protected in Thailand and Cambodia	1) 3) 7) 14) 16) 17)
<i>Mauremys iversoni</i>	China	IUCN: "data deficient" (1996); Red Data Book China (1998): "data deficient", <b>in total 29 specimens are known</b>	-	capture permit needed	1)
<b><u>Mauremys mutica</u></b> Yellow pond turtle	China, Japan, Vietnam, Lao PDR?	Red Data Book China (1998): "endangered" in 1996 the most common turtle found at markets in Hong Kong	-	nationally protected in China during breeding season	1) 3) 7) 12) 13) 16)
<i>Mauremys pritchardi</i>	China (Yunnan), Myanmar	no data	-	nationally protected in Myanmar	1)
<i>Melanocheilus edeniana</i>	Myanmar	widely distributed in Myanmar	-	nationally protected in Myanmar	1) 19)
<i>Melanocheilus trijuga</i> ( <i>indopeninsularis</i> ) Indian Black turtle	Bangladesh, India, Myanmar, Nepal, Sri Lanka, Thailand	IUCN: "data deficient" (1996); rare in Bangladesh	-	nationally protected in Thailand, Bangladesh and Myanmar	1) 11) 14)
<b><u>Morenia ocellata</u></b> Burmese eyed turtle	Myanmar	IUCN: "near threatened" (1996); rare in Bangladesh	App. I		1) 7) 11) 14) 16)
<b><u>Morenia petersi</u></b> Indian eyed turtle	Bangladesh, India, Myanmar	IUCN: "near threatened" (1996); Bangladesh: "common"	-	nationally protected in Bangladesh and Myanmar	1) 11) 14) 16)
<i>Notochelys platynota</i> Malayan flat-shelled turtle	Brunei, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Vietnam, Cambodia?	IUCN: "data deficient" (1996)	-	nationally protected in Thailand and Myanmar	1) 3) 7)



<i>Ocadia glyphistoma</i>	China	IUCN: "data deficient" (1996); Red Data Book China (1998): "Data deficient, <b>in total only 10 specimens are known</b> "	-	capture permit needed	1) 12)
<i>Ocadia philippeni</i>	China (Hainan)	IUCN: "data deficient" (1996); Red Data Book China (1998): "Data deficient, <b>in total only nine specimens are known</b> "	-	capture permit needed	1) 12)
<i>Ocadia sinensis</i> Chinese stripe-necked turtle	China, Lao PDR, Taiwan, Vietnam	IUCN: "near threatened" (1996) Red Data Book China (1998): "Endangered", on sale in Hong Kong	-	China: capture permit needed	3) 7) 12)
<i>Orlitia borneensis</i> Malayan giant turtle	Indonesia, Malaysia, Brunei?	IUCN: "near threatened" (1996)	-	no data	7) 12)
<b><u>Pyxidea mouhotii</u></b> Keeled box turtle	Cambodia, China, India, Lao PDR, Myanmar, Thailand, Vietnam	Red Data Book China (1998): "endangered", on sale in Hong Kong	-	nationally protected in Thailand, Cambodia and Myanmar	1) 3) 7) 12) 17)
<i>Sacalia bealei</i> Four-eyed turtle	China (incl. Hong Kong and Hainan), Vietnam, Lao PDR?	IUCN: "vulnerable" (1996); Red Data Book China (1998): "endangered"	-	China: capture permit needed	1)
<i>Sacalia pseudocellata</i> Chinese eyed turtle	China (Hainan)	IUCN: "data deficient" (1996); Red Data Book China (1998): "Data deficient, <b>in total three specimens are known</b> "	-	capture permit needed	1) 12)
<i>Sacalia quadriocellata</i> Four-eyed turtle	China, Vietnam, Lao PDR?	IUCN: "vulnerable" (1996); Red Data Book China (1998): "endangered"	-	China: capture permit needed	1) 3) 7)
<b><u>Siebenrockiella crassicolis</u></b> Black marsh turtle	Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Vietnam, Brunei?		-	nationally protected in Lao PDR, Myanmar and Thailand	1) 3) 7)
<i>Terrapene coahuila</i> Coahuilan box turtle	Mexico	IUCN: "endangered" (1996)	App. II		13)
<i>Trachemys scripta elegans</i> Red eared slider	Mexico, USA		-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1) 17)
<b>Testudinidae</b>					
<i>Geochelone platynota</i> Burmese star tortoise	Myanmar	IUCN: "critically endangered" (1996); <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. II	nationally protected in Myanmar	1) 7) 12) 15)
<b><u>Indotestudo elongata</u></b> Elongated tortoise	Bangladesh, Cambodia, China, India, Lao PDR, Malaysia, Myanmar, Nepal, Thailand, Vietnam	IUCN: "vulnerable" (1996); Red Data Book Vietnam (1992): "vulnerable" Red Data Book China (1998): "endangered" "rare" in Nepal and Bangladesh	App. II	nationally protected in Myanmar, Bangladesh, Cambodia, Vietnam and Thailand; China: capture permit needed	1) 3) 7) 9) 11) 12) 13) 14) 16) 17) 18) 19)
<i>Indotestudo forstenii</i> * Travancore tortoise	India, Indonesia	IUCN: "vulnerable"	App. II		7) 12)
<i>Manouria emys</i> Asian brown tortoise	Bangladesh, India, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, Vietnam?	IUCN: "vulnerable" (1996); <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. II	nationally protected in Thailand, Myanmar and Bangladesh	1) 15) 19)
<b><u>Manouria impressa</u></b> * Impressed tortoise	China, Malaysia, Myanmar, Thailand, Vietnam, Cambodia? Lao PDR?	IUCN: "vulnerable" (1996); Red Data Book Vietnam (1992): "vulnerable"; Red Data Book China (1998): "endangered"; <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. II	nationally protected in Thailand, Myanmar and Vietnam; China: protected (Grade II), capture permit needed	1) 3) 13) 14) 15) 16) 18) 19)
<b><u>Testudo horsfieldii</u></b> Central Asian tortoise	Afghanistan, Azerbaijan, China, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan, Turkmenistan	IUCN: "vulnerable" (1996); Red Data Book China (1998): "critically endangered"	App. II	nationally protected in China (Grade I), protected nature reserve established	13)
<b>Trionychidae</b>					

<b><i>Amyda cartilaginea</i>*</b> Asiatic softshell turtle	Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Vietnam, Brunei?	IUCN: "vulnerable" (1996); most common softshell turtle in trade, declining populations	-	nationally protected in Lao PDR and Myanmar	3) 7) 14) 16) 17) 19)
<i>Apalone ferox</i> Florida softshell turtle	USA	overall populations appear stable; some local populations may be in decline.	-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1)
<i>Apalone spinifera</i> Spiny softshell turtle	USA	overall populations appear stable; some local populations may be in decline.	-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1) 16)
<b><i>Aspideretes gangeticus</i>*</b> Indian softshell turtle	Bangladesh, India, Nepal, Pakistan	Nepal: "common"	App. I		1) 9) 14)
<b><i>Aspideretes hurum</i>*</b> Peacock softshell turtle	Bangladesh, India, Nepal, Pakistan	Nepal: "common, but declining"	App. I		1) 9) 14) 16)
<i>Chitra indica</i> * Narrow-headed softshell turtle	Bangladesh, India, Lao PDR, Nepal, Pakistan, Thailand, Bhutan? Malaysia? Myanmar?	IUCN: "vulnerable" (1996); Populations declining; Nepal: "common, but declining"	-	nationally protected in India, Bangladesh and Thailand	1) 5) 9) 19)
<b><i>Dogania subplana</i>*</b> Malayan softshell turtle	Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, Brunei?	declining populations in Thailand	-	nationally protected in Thailand and Myanmar	1) 6)
<i>Lissemys punctata</i> * Indian flapshell turtle	Bangladesh, India, Myanmar, Nepal, Pakistan, Sri Lanka, Bhutan?	in Nepal and Bangladesh: "common"	App. II	nationally protected in Myanmar and Bangladesh	1) 9) 11) 16)
<i>Nilssonina formosa</i> Burmese peacock softshell turtle	Myanmar, Thailand? China?	IUCN: vulnerable" (1996)	-	nationally protected in Myanmar	1)
<i>Palea steindachneri</i> Wattle-necked softshell turtle	Vietnam, China, introduced in Hawaii and Mauritius	IUCN: "near threatened" (1996) Red Data Book China (1998): "endangered, very rare"	-	China: protected (Grade II), capture permit needed	1) 2) 3) 7) 13)
<b><i>Pelochelys cantori</i>*</b> Asian Giant softshell turtle	Bangladesh, India, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam, Brunei?, Cambodia? Lao PDR? Singapore?	IUCN: "vulnerable" (1996); Red Data Book Vietnam (1992): "vulnerable" declining populations	-	nationally protected in India, Vietnam, Bangladesh, Myanmar and Thailand	1) 3) 6) 7) 13) 19)
<b><i>Pelodiscus sinensis</i></b> Chinese softshell turtle	China, Indonesia, Japan, Korea, Japan, Philippines, Russia, Singapore, Vietnam, introduced to Thailand	Red Data Book China (1998): "vulnerable", declining populations; one of the most abundant species on sale in Hong Kong	-	nationally protected in Thailand, China: capture permit needed	1) 3) 7) 13) 16)
<b>Platysternidae</b>					
<i>Platysternon megacephalum</i> Big-headed turtle	Cambodia, China, Lao PDR, Myanmar, Singapore, Thailand, Vietnam	IUCN: "data deficient" (1996) Red Data Book Vietnam (1992): "rare" Red Data Book China (1998): "endangered, very rare"	-	nationally protected in Thailand, Myanmar and Cambodia, China: capture permit needed	1) 3) 7) 12)

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